AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS

1.-19. (Canceled)

20. (Currently amended) A device for stimulating a muscle contraction of a muscular-driven heart assist system which operates in parallel or in series with a diseased heart, comprising:

a pulse generator unit for generating and supplying electric stimulation pulses to a muscle of the muscular-driven heart assist system;

a control unit for controlling the pulse generator unit for setting an amplitude and a frequency of the stimulation pulses and for causing the stimulation pulses to be applied to [[a]] the muscle of the muscular-driven heart assist system to be stimulated;

a detection unit for detecting an instantaneous, spontaneous or stimulated heart rhythm of a wearer of the device;

a housing receiving the pulse generator unit, the control unit and the detection unit;

a memory module for storing [[the]] a temporal course of the number of supplied stimulation pulses within a defined time interval;

a counting unit and a memory unit for counting and storing a number of stimulation pulses supplied during the defined time interval, wherein the stimulation pulses are grouped into variable stimulation bursts;

a determination unit for determining an arithmetically averaged (mean) stimulation frequency within the defined time interval, with the mean stimulation frequency being computed as the quotient of the number of stimulation pulses of the variable stimulation bursts supplied during the defined time interval and stored in the memory unit and the defined time interval in which the stimulation pulses are counted and stored;

a continuously operating evaluation unit for ascertaining that the mean

stimulation frequency stays within preset limit values, wherein the limit values of the mean stimulation frequency can be ~~individually~~ preset in a range between 0.2 stimulation pulses per second and a maximum of 2 stimulation pulses per second;

pulse conservation means for reducing the mean stimulation frequency depending on the limit values ~~maximum mean stimulation frequency~~ preset in the evaluation unit, wherein the pulse conservation means comprise a computing unit for computing a stimulation pattern according to an equation which determines the stimulation pattern as a function of the mean stimulation frequency and varies ~~wherein~~ the number of stimulation pulses during a stimulation burst to generate and maintain type-IIa muscle fibers and to prevent their conversion to type-I muscle fibers ~~can be varied to reduce the mean stimulation frequency~~; and

a monitoring unit worn by the wearer of the device external to the body for displaying the mean stimulation frequency and for self-control of the patient.

21. (Previously presented) The device of claim 20, further comprising means for program-controlled transmission of the mean stimulation frequency from the determination unit to the evaluation unit.

22. (Previously presented) The device of claim 20, further comprising an analysis unit for determining how often and when certain limit values of the heart rate and/or of the mean stimulation frequency are exceeded or underrun.

23. (Previously presented) The device of claim 20, wherein the counting unit and the memory unit are received in the housing.

24. (Previously presented) The device of claim 20, wherein the determination unit and/or the pulse conservation means are integrated in the housing which receives the control unit.

25. (Previously presented) The device of to claim 22, wherein the memory module and/or the analysis unit are integrated in the housing which receives the control unit.

26. (Previously presented) The device of claim 20, wherein the monitoring unit comprises a programming unit for generating a programming signal, and a transmission unit for transmitting the programming signal to a send and receive unit located in the housing which receives the control unit.

27. (Previously presented) The device of claim 20, wherein at least one of the counting unit, the memory unit, the determination unit, the pulse conservation means, the memory module and the analysis unit are a part of a stationary monitoring unit or of the monitoring unit worn by the wearer of the device external to the body.

28. (Previously presented) The device of claim 20, wherein the mean stimulation frequency, or an order of magnitude of the mean stimulation frequency, is displayed on the monitoring unit by optical, acoustic or haptic means, or a combination thereof.

29. (Previously presented) The device of claim 20, wherein the monitoring unit includes means for sending and receiving position data.

30. (Previously presented) The device of claim 29, wherein the monitoring unit includes means for sending and receiving wireless signals for transmitting patient-physiological data to a display and evaluation unit of a remote receiver.

31. (Previously presented) The device of claim 20, wherein the pulse generator unit transmits biphasic stimulation pulses.

32. (Previously presented) The device of claim 20, further comprising a transcutaneously chargeable energy storage device received in the housing.

33. (Previously presented) The device of claim 20, wherein the defined time interval is at least 30 minutes.

34. (Previously presented) The device of claim 20, wherein the defined time interval is at least 12 hours.

35. (Previously presented) The device of claim 20, wherein the defined time interval is at least 24 hours.

36. (Previously presented) The device of claim 20, wherein the amplitude of the stimulation pulses within a stimulation burst is variable.

37. (Previously presented) The device of claim 20, wherein a pulse width of the stimulation pulses within a stimulation burst is variable.

38. (Previously presented) The device of claim 20, wherein a temporal spacing between two stimulation pulses within a stimulation burst is variable.

39. (Canceled)

40. (New) A method for generating and maintaining type-IIa muscle fibers and prevent their conversion to type-I muscle fibers in a muscular-driven heart assist system which operates in parallel or in series with a diseased heart, comprising the steps of:

detecting an instantaneous, spontaneous or stimulated heart rhythm of the diseased heart;

setting a limit value for an mean stimulation frequency for stimulation pulses applied to the heart assist system between a minimum of 0.2 stimulation pulses per second and a maximum of 2 stimulation pulses per second;

setting a pattern of the stimulation pulses based on the heart rhythm, with the stimulation pulses being grouped into variable stimulation bursts;

determining the mean stimulation frequency from a total number of applied stimulation pulses during a defined time interval; and

if the mean stimulation frequency exceeds the upper limit value, decreasing the number of the stimulation pulses in the stimulation bursts so as to reduce the mean stimulation frequency below the limit value and to generate and maintain the type-IIa muscle fibers.

41. (New) The method of claim 40, wherein the limit value is between a minimum of 0.7 stimulation pulses per second and a maximum of 1 stimulation pulse per second.

42. (New) The method of claim 40, wherein the defined time interval is at least 1 hour.

43. (New) The method of claim 40, wherein the defined time interval is between 12 hours and 24 hours.

44. (New) The method of claim 40, and further displaying the mean stimulation frequency and displaying or transmitting, or both, an alarm when the mean stimulation frequency exceeds the upper limit value.